

IN THE CLAIMS:

Claims 1-18, 20-53, 58 and 64 were previously canceled. Please cancel claims 19, 54-57, 59-63 and 65-82 and add new claims 83-104. This listing of claims will replace all prior versions, and listings, of claims in the application.

1-82. (Canceled)

83. (New): A method for identifying a candidate compound capable of interacting with a polypeptide selected from the group consisting of:

a) a polypeptide which is at least 95% identical to the amino acid sequence of SEQ ID NO:2; and

b) a polypeptide encoded by a nucleic acid molecule comprising a nucleotide sequence which is at least 95% identical to the nucleotide sequence of SEQ ID NO:1 or SEQ ID NO:3;

wherein the polypeptide has protease activity;

the method comprising:

i) contacting a sample comprising the polypeptide with a test compound under conditions suitable for interaction; and

ii) determining whether the polypeptide binds to the test compound;  
thereby identifying a compound capable of interacting with the polypeptide.

84. (New): The method of claim 83, wherein the sample is an isolated polypeptide, a membrane-bound form of an isolated polypeptide or a cell comprising the polypeptide.

85. (New): The method of claim 84, wherein the cell is a mammalian cell.

86. (New): The method of claim 83, wherein the interaction is *in vitro*.

87. (New): The method of claim 83, wherein the candidate compound is selected from the group consisting of a peptoid, a peptidomimetic, a peptide, a phosphopeptide, an antibody, an organic molecule, and an inorganic molecule.

88. (New): The method of claim 83, wherein the candidate compound is selected from the group consisting of: L-1-Chloro-3-tosylamido-4-phenyl-2-butanone, Soybean inhibitor, benzamidine, p-Nitrophenyl-p-guanidino benzoate, Tosyl-L-lysine chloromethyl ketone, and Tosyl-L-arginine chloromethyl ketone.

89. (New): The method of claim 83, wherein the candidate compound is a member of biological library.

90. (New): The method of claim 83, wherein the candidate compound is detectably labeled.

91. (New): The method of claim 90, wherein the label is selected from the group consisting of enzymes, prosthetic groups, fluorescent materials, luminescent materials, bioluminescent materials and radioactive materials.

92. (New): The method of claim 83, wherein the candidate compound is attached to a bead.

93. (New): The method of claim 83, wherein the interaction of the candidate compound to the polypeptide is detected by a method selected from the group consisting of:

- a) direct detection of test compound/polypeptide binding;
- b) a competition binding assay;
- c) an immunoassay; and
- d) a yeast two-hybrid assay.

94. (New): A method for identifying a candidate compound capable of interacting with a polypeptide selected from the group consisting of:

a) a polypeptide comprising the amino acid sequence of SEQ ID NO:2; and

b) a polypeptide encoded by a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:1 or SEQ ID NO:3;

the method comprising:

i) contacting a sample comprising the polypeptide with a test compound under conditions suitable for interaction; and

ii) determining whether the polypeptide binds to the test compound;  
thereby identifying a compound capable of interacting with the polypeptide.

95. (New): The method of claim 94, wherein the sample is an isolated polypeptide, a membrane-bound form of an isolated polypeptide or a cell comprising the polypeptide.

96. (New): The method of claim 95, wherein the cell is a mammalian cell.

97. (New): The method of claim 94, wherein the interaction is *in vitro*.

98. (New): The method of claim 94, wherein the candidate compound is selected from the group consisting of a peptoid, a peptidomimetic, a peptide, a phosphopeptide, an antibody, an organic molecule, and an inorganic molecule.

99. (New): The method of claim 94, wherein the candidate compound is selected from the group consisting of: L-1-Chloro-3-tosylamido-4-phenyl-2-butanone, Soybean inhibitor, benzamidine, p-Nitrophenyl-p-guanidino benzoate, Tosyl-L-lysine chloromethyl ketone, and Tosyl-L-arginine chloromethyl ketone.

100. (New): The method of claim 94, wherein the candidate compound is a member of biological library.

101. (New): The method of claim 94, wherein the candidate compound is detectably labeled.

102. (New): The method of claim 101, wherein the label is selected from the group consisting of enzymes, prosthetic groups, fluorescent materials, luminescent materials, bioluminescent materials and radioactive materials.

103. (New): The method of claim 94, wherein the candidate compound is attached to a bead.

104. (New): The method of claim 94, wherein the interaction of the candidate compound to the polypeptide is detected by a method selected from the group consisting of:

- a) direct detection of test compound/polypeptide binding;
- b) a competition binding assay;
- c) an immunoassay; and
- d) a yeast two-hybrid assay.